AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A method of separating a negatively charged target biopolymer from other biopolymers which are not negatively charged or which are larger than said target biopolymer, comprising the steps of:

partitioning a container into a first ~~buffer chamber~~ area, initially containing said target biopolymer and other biopolymers, and a second ~~buffer chamber~~ area, for preserving separated target biopolymer, with the use of a partition;

moving said target biopolymer from within said first ~~buffer chamber~~ area through said partition into said second ~~buffer chamber~~ area using electrophoresis; and

separating said target biopolymer from a buffer in said second ~~buffer chamber~~ area,

wherein said partition is a gel, a pillar array or a porous filter,

wherein said target biopolymer is a nucleic acid or protein, and

wherein said other biopolymers are nucleic acids and/or proteins.

2. (Currently Amended) A method of separating a negatively charged target biopolymer from other biopolymers which are smaller than said target biopolymer, comprising the steps of:

partitioning a container into a first ~~buffer chamber~~ area, initially containing said target biopolymer and said other biopolymers, a second ~~buffer chamber~~ area, for preserving said other biopolymers, and a third ~~buffer chamber~~ area, for preserving said target biopolymer, from each other with the use of a partition;

moving said other biopolymers from within said first ~~buffer chamber~~ area through said partition and into said second ~~buffer chamber~~ area using a first electrophoresis device,

moving said target biopolymer from within said first ~~buffer chamber~~ area into said partition using said first electrophoresis device, then

moving said target biopolymer from within said partition into said third ~~buffer chamber~~ area using a second electrophoresis device; and

separating said target biopolymer from a buffer in said third ~~buffer chamber~~ area,

wherein said target biopolymer is a nucleic acid or protein, and

wherein said other biopolymers are nucleic acids and/or proteins.

3. (Previously Presented) The biopolymer separation method of claim 2, wherein said partition is a gel, a pillar array or a porous filter.

4-6. (Cancelled)

7. (Currently Amended) A biopolymer separation method, wherein a negatively charged target biopolymer fixed to a magnetic bead is separated from other biopolymers, comprising the steps of:

partitioning a container into a first ~~buffer chamber~~ area, initially containing said target biopolymer fixed to said magnetic bead and said other biopolymers, a second ~~buffer chamber~~ area, for preserving separated other biopolymers, and a third ~~buffer chamber~~ area, for preserving

said separated target biopolymer fixed to said magnetic bead, from each other with the use of a partition;

moving said target biopolymer fixed to said magnetic bead and said other biopolymers from within said first ~~buffer chamber~~ area into said partition using electrophoresis;

while said target biopolymer fixed to said magnetic bead and said other biopolymers are in said partition, moving said target biopolymer fixed to said magnetic bead into said third ~~buffer chamber~~ area using magnetophoresis; and

separating said target biopolymer fixed to said magnetic bead from a buffer in said third ~~buffer chamber~~ area,

wherein said target biopolymer is a nucleic acid or protein, and

wherein said other biopolymers are nucleic acids and/or proteins.

8. (Previously Presented) The biopolymer separation method of claim 7, wherein said partition is a gel, a pillar array or a porous filter.

9-11. (Cancelled)